



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**02.05.2002 Bulletin 2002/18**

(51) Int Cl.7: **G06K 15/00, H04N 1/41**

(43) Date of publication A2:  
**31.05.2000 Bulletin 2000/22**

(21) Application number: **99122586.3**

(22) Date of filing: **12.11.1999**

(84) Designated Contracting States:  
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE**  
Designated Extension States:  
**AL LT LV MK RO SI**

- **Rumph, David E.**  
**Pasadena, California 91104 (US)**
- **Blurfrushan, Farzin**  
**Redondo Beach, California 90278 (US)**
- **Rider, Ronald E.**  
**Menlo Park, California 94025 (US)**

(30) Priority: **17.11.1998 US 193194**

(71) Applicant: **Xerox Corporation**  
**Rochester, New York 14644 (US)**

(74) Representative: **Grünecker, Kinkeldey,  
Stockmair & Schwanhäusser Anwaltssozietät  
Maximilianstrasse 58  
80538 München (DE)**

(72) Inventors:  
• **Eldride, George L.**  
**Long Beach, California 90815-1945 (US)**

(54) **Run-length encoding for a printing system**

(57) A run length codeword system which has a set of codewords, each codeword being one byte. The first codeword of a run is divided into a 4-bit code part and 4 bits of printing hints. The code part specifies the source of the data, and the format of the remaining bytes in the run. The remaining one or two codewords specify the number of remaining data bytes in the run, or color values.

RLC CODES	COMMANDS
0010 TTTT+ COLOR VALUE (1 byte, 0-255)	ONE PIXEL (2 bytes) TTTT - RENDERING HINTS VALUE
0010 TTTT+ LENGTH (1 byte, 2-255) + COLOR VALUE (1 byte, 0-255)	SHORT RUN (3 bytes)
0101 TTTT+ LENGTH (2 bytes, 256 - 65535) + COLOR VALUE (1 byte, 0-255)	LONG RUN (4 bytes)
0110 TTTT+ LENGTH (1 byte, 2 - 255) + COLOR VALUE (n bytes, 0-255)	SHORT LITERAL (n+2 bytes)
0111 TTTT+ LENGTH (2 bytes, 256 - 65535) + COLOR VALUE (n bytes, 0-255)	LONG LITERAL (n+3 bytes)
1000 TTTT+ LENGTH (1 byte, 1-255)	SHORT TRANSPARENT (n+2 bytes)
1001 TTTT+ LENGTH (2 bytes, 256-65535)	LONG TRANSPARENT (n+3 bytes)

**FIG. 1**



DOCUMENTS CONSIDERED TO BE RELEVANT			
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A	WO 96 31837 A (HELL AG LINOTYPE ;SOEKER WILFRIED HELMUT (DE)) 10 October 1996 (1996-10-10) * page 9, line 4 - page 11, line 23 *	5	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H04N G06T
The present search report has been drawn up for all claims			
Place of search <b>THE HAGUE</b>		Date of completion of the search <b>11 March 2002</b>	Examiner <b>Exner, A</b>
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03 02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
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EP 99 12 2586

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
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